

LNPT[™] LUBRICOMP[™] COMPOUND KL003

KL-4030

DESCRIPTION

LNP LUBRICOMP KL003 compound is based on Acetal (POM) Copolymer resin containing 15% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION

Features	Wear resistant
Fillers	Unreinforced, PTFE
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding

INDUSTRY

Building and Construction
Consumer
Electrical and Electronics
Industrial

SUB INDUSTRY

Building Component
Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Mobile Phone - Computer - Tablets
Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	48	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	48	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	10	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	19	%	ASTM D638
Tensile Modulus, 5 mm/min	2530	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	75	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2210	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	46	MPa	ISO 527
Tensile Stress, break, 5 mm/min	46	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	9	%	ISO 527
Tensile Strain, break, 5 mm/min	16	%	ISO 527
Tensile Modulus, 1 mm/min	2460	MPa	ISO 527
Flexural Modulus, 2 mm/min	2240	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	650	J/m	ASTM D4812
Izod Impact, notched, 23°C	40	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	158	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	98	°C	ASTM D648

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CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	1.07E-04	1 / °C	ASTM D696
CTE, -30°C to 30°C, xflow	1.07E-04	1 / °C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	149	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	88	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.49	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Wear Factor Washer	11	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	0	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.35	-	ASTM D3702 Modified: Manual
Static COF	0.17	-	ASTM D3702 Modified: Manual
Density	1.49	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.29	%	ISO 62
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	200 – 215	°C	
Front - Zone 3 Temperature	210 – 220	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	175 – 190	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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